

Remarks

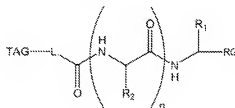
Courtesies extended to Applicants' representative during the personal interview held on May 12, 2010, are acknowledged with appreciation. The substance of the interview is substantially as set forth herein, and the Examiner Interview Summary of the same date.

As discussed during the personal interview, by the present communication, claim 20 has been amended to define Applicants' invention with greater particularity. No new matter is introduced by the subject amendments as the new claim language is fully supported by the specification and original claims.

Upon entry of the amendments submitted herewith, claims 20-30 will remain pending. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented in the **Listing of Claims** starting on page 2, with an appropriate defined status identifier.

Rejection under 35 U.S.C. § 102(b)

The rejection of claims 20 and 21 under 35 U.S.C. § 102(b) as allegedly being anticipated by Wilbur et al., *Bioconjugate Chemistry* (2001), 12(4), 616-623, is respectfully traversed. As discussed during the personal interview, Applicants' invention, as defined, for example, by claim 20, distinguishes over Wilbur et al. by requiring a core structure comprising up to 4 amino acid units, with a defined reactive group (RG) at one end thereof, and a defined detectable label (TAG) at the other end thereof, as follows:



wherein:

RG is $-C(O)-CH_2-LG$ (wherein LG is a defined aryloxy or aryl-carboxy leaving group); and

$n = 0, 1, 2, 3$ or 4 .

Each of the variables associated with the core of the molecule, i.e., R_1 , R_2 and L , are further defined structurally in the claim.

As discussed at the personal interview, Wilbur et al. do not disclose or suggest such compounds. Specifically, Wilbur et al. do not contemplate the presence of a reactive group having the structure $-C(O)-CH_2-LG$ (wherein LG is a defined aryloxy or aryl-carboxy leaving group). Instead, the Wilbur et al. compounds contemplate a simple ester linkage between the core of the compound and LG , and therefore lack the $-CH_2-$ linkage between the core structure and the leaving group, LG , as is required by the invention compounds.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b) are respectfully requested.

Rejection under 35 U.S.C. § 112, second paragraph

The rejection of claims 20-22 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite, is respectfully traversed. Applicants respectfully disagree with the Examiner's assertion that "[i]t is unclear how electrochemical labels . . . can be considered a detectable label." (See the first full paragraph at page 5 of the Office Action). As discussed at the personal interview, one of skill in the art would readily recognize that each of the agents or categories of agents set forth in the claims could readily be identified by suitable analytical technique(s).

Moreover, in order to reduce the issues and expedite prosecution, the list of TAG's contemplated by the present claims has been streamlined to embrace agents, and classes of agents, for which there can be no issue that compounds containing same can be readily detected by techniques which are well known in the art.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, are respectfully requested.

Rejection under 35 U.S.C. § 112, first paragraph (written description)

The rejection of claims 20-22, 25 and 26 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement, is respectfully traversed. Applicants respectfully disagree with the Examiner's assertion that "[t]he claim(s) contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." (See the last paragraph at the bottom of page 5 of the Office Action).

The proper standard for determining compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, is whether the specification reasonably conveys to the skilled artisan that the inventor was in possession of the claimed invention as of the filing date. See MPEP § 2163.02 (citing *Ralston Purina Co. v. Far-Mar-Co., Inc.*, 772 F.2d 1570, 227 USPQ 177, 179 (Fed. Cir. 1985)). The subject matter of the claimed invention need not be described literally in the specification in order to satisfy the requirements of 35 U.S.C. § 112, first paragraph. *Id.*

As discussed at the personal interview, it is respectfully submitted that the inventor(s) were clearly in possession of the invention as claimed herein at the time the application was filed.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, first paragraph, are respectfully requested.

Rejection under 35 U.S.C. § 112, first paragraph (written description—New Matter)

The rejection of claims 20 and 30 under 35 U.S.C. § 112, first paragraph, as allegedly containing new matter, is respectfully traversed. Applicants respectfully disagree with the Examiner's assertions that:

- (1) the clause "R₁ and/or R₂ is -CH₂-CH₂-CH₂-, such that R₁ and/or R₂, along with the -NH- adjacent thereto, forms a pyrrolidine ring," allegedly introduces new matter into the claims;

- (2) the change of $n = 1-4$ to $n = 0-4$ allegedly introduces a new range for which there is no support; and
- (3) the phrase in claim 30 "wherein Z at each occurrence refers to $-C(O)-O-CH_2$ -phenyl" allegedly lacks support.

With respect to point (1), while the objected to language is submitted to be clear, in order to reduce the issues and expedite prosecution, the subject language has been deleted herein and the chemical structure originally set forth in claim 1 has been re-instated.

With respect to point (2), as discussed at the personal interview, the Examiner's attention is directed to page 18, line 1 of Applicants' specification, which explicitly discloses the broad numerical range of 0-4 for n.

With respect to point (3), the Examiner's attention is directed to the attached excerpt from an authoritative book on protecting groups (entitled "Greene's Protective Groups in Organic Synthesis", Fourth Ed., 2007, John Wiley & Sons, NJ), which indicates that the commonly used protecting group, benzyl carbamate, is routinely abbreviated in the art as Cbz or simply, Z. Therefore, it is respectfully submitted that one of skill in the art, when considering the compounds set forth in claim 30 which contain a "substituent" Z, would readily recognize that such compounds are merely protected forms of the free amino-containing derivatives thereof, wherein the protecting group is a benzyl carbamate.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, first paragraph are respectfully requested.

Claim Objections

The objection to claims 20, 21 and 25 for presenting the variable defining the side chains of the naturally occurring amino acids with a line drawn to the atom which is linked to the amino acid core is respectfully traversed. It is submitted that the nomenclature employed in the claims as presented is fully consistent with nomenclature used in the art, and would be readily understood by those of skill in the art. Indeed, absent the use of such lines, the alternate

"objection" could also be asserted (i.e., that the point of attachment of such substituents to the core molecule is allegedly unclear)-----such that the Examiner's request is more a matter of personal preference, and has nothing to do with the clarity (or lack thereof) of the present claims.

Accordingly, reconsideration and withdrawal of the objection to the claims are respectfully requested.

Conclusion

In view of the above amendments and remarks, reconsideration and favorable action on all claims are respectfully requested. In the event that any matters remain to be resolved in view of this communication, the Examiner is encouraged to call the undersigned so that a prompt disposition of this application can be achieved.

Respectfully submitted,

Date: 6/14/10

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Enclosure-----page 748 from "Greene's Protective Groups in Organic Synthesis", Fourth Ed., 2007, John Wiley & Sons, NJ.